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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,275	12/05/2003	Tim Hellman	15817US02	1607

7590 01/29/2007
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EXAMINER

RAHMJOO, MANUCHER

ART UNIT PAPER NUMBER

2628

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/729,275

Applicant(s)

HELLMAN, TIM

Examiner

Mike Rahmjoo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2007.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 17-24 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8, 17-24 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1- 8, 17- 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over LINZER et al, US Patent Application Publication, Pub., No. US 2004/0100577 in view of Dean (US PAP 2003/ 0095126).

As per claims 1 and 17, and as to the broadest reasonable interpretation by examiner, LINZER et al teaches retrieving a plurality of color space components from a first memory, wherein a decomposing of pixel image data produces said color space components and wherein each of color space components begins in a different burst see for example paragraphs [0037], [0042] , [0063] and [0073] for the decomposed three primary colors associated with different color space components which are transferred in different burst; and storing and retrieving (see for example paragraphs [0042] and [0051] for fetching, storing/ retrieving) the plurality of color space components in one continuous machine-readable memory segment in a machine

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readable memory (see section 0042 - 'Cb and co- located Cr pixels may be stored adjacent to each other'), the machine readable memory having one or more burst boundaries (section 0042 also discloses more than one burst boundary broadly corresponding to different memory segments); and storing the pixel image data in one continuous machine readable memory segment in the machine readable memory device, the continuous machine readable memory segment having one or more burst boundaries see for example paragraph [0033] for memory 102 (corresponding to one continuous memory) is implemented as one 32-bit wide chip wherein a burst may comprise 16 bytes aligned to a 16 byte boundary and paragraph [0054] for the each memory (right or left memories corresponding to continuous memory segment) switches between rows every burst length; LINZER et al inherently teaches copying the plurality of color space components to a video frame being decoded for display through motion compensation which is in accordance with applicant's definition as per applicant's specification see for example paragraph [0033].

However, LINZER et al does not teach three colorspace components and one type of colorspace component is stored in each burst.

Dean teaches three colorspace components and one type of colorspace component is stored in each burst corresponding to for example fig. 2- 4 and [0017- 18] wherein burst color specific sets of data (e.g., red data set 42) is particularly advantageous in a color sequential system in which the three primary colors (red, green and blue corresponding to three different types of colorspace components each having its address which is accessed in memory bursts) must be separated and stored

(corresponding to storing one color type in each burst) at contiguous locations in the shared memory 18 in anticipation of different display presentation times.

It would have been made obvious to one of ordinary skilled in the art at the time the invention was made to incorporate the teachings Dean into LINZER et al to have a burst comprising color space components of a single type and therefore increase the speed of movement of large sequential blocks of data substantially as well as having all color space components for one macroblock which may be fetched simultaneously through the use of one burst access, thus decreasing the required bandwidth to improve the efficiency and cost effectiveness of the system see for example [0004].

As per claims 2 and 18, LINZER et al meet limitations of claim 1, including, wherein the machine-readable memory comprises volatile memory (SDRAM is analogous to volatile memory - see sections 0006, 0008 and 0033).

As per claims 3, 19 and in light of the rejection of claims 2, 18, it would have been obvious to replace SDRAM with DRAM. DRAM is widely known in computer systems and also has the benefit of reducing the cost of the overall system.

As per claims 4 and 20, LINZER et al meet limitations of claim 2, including, wherein the volatile memory comprises static random memory (see sections 0006, 0008 and 0033).

As per claims 5 and 21, LINZER et al meet limitations of claim 1, including, wherein the color space components comprise luminance, red difference sample, and blue difference sample see (section 0042)

As per claims 6 and 22 Dean teaches the colorspace components comprise red, green, and blue color levels corresponding for example to fig. 2- 4 and [0017- 18] wherein color sequential system in which the three primary colors (red, green and blue corresponding to three different types of colorspace components each having its address which is accessed in memory bursts) must be separated and stored (corresponding to storing one color type in each burst).

As per claims 7 and 23, LINZER et al meet limitations of claim 1, including, wherein the pixel image data comprises a first data byte (section 0007), the first data byte being registered at a memory address immediately following one of the one or more burst boundaries (see section 0007 and section 0054 matches the address means with the burst means for the at least one burst boundary).

As per claims 8 and 24, LINZER et al teaches wherein the pixel image data comprises a first data byte and subsequent data bytes (see section 0007), one of the subsequent data bytes being registered at a memory address immediately following one of the one or more burst boundaries (see section 0007 and section 0054 matches the address means with the burst means for the at least one burst boundary).

Response to Arguments

Applicant's arguments with respect to claims 1- 8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Rahmjoo whose telephone number is 571-272- 7789. The examiner can normally be reached on 8 AM- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on 571-272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mike Rahmjoo

January 22, 2007



KEE M. TUNG
SUPERVISORY PATENT EXAMINER